BUYERS' GUIDE

Five key factors when selecting the right data and tech partner in healthcare

How to identify the right data and tech partner to enhance your offerings and grow your business

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This comprehensive guide includes specific criteria to help organizations, like yours, evaluate potential data and tech partners to find a possible match to achieve your goals when it comes to:

1 Data quality, curation and compatibility

2 Market expertise — taking you from parity to innovation

3 Implementation success and beyond

4 Data privacy and security

5 A culture of innovation

Buyers' guide overview

It is no surprise that quality, curated healthcare data has grown into one of the most valuable business assets today. But, to unlock the full potential of this massive data pool, it comes down to identifying the specific datasets that best complement your business and help you achieve your goals while ensuring adherence to evolving privacy and security requirements.

As the industry continues to aggregate and utilize data, the opportunities to uncover valuable insights grows exponentially, and the only way to maximize the value of these insights is to identify the right data provider with the best solution for your specific needs. Perhaps, your organization is trying to develop a more complete view into the patient's journey, analyze a new market, or verify the accuracy of existing data. While you may not have the internal resources to do this work in house, you can work with a data partner that can help you solve multiple challenges.

Ideally, a partner organization can help you get a more complete picture. You want a partner that can help you innovate and solve problems and one with which you can grow. This guide will help support you in your search for and in the evaluation of a potential data partner.

Complexities of choice

Whether you are a part of a provider organization, payer, pharmacy, life science, or healthcare technology company, you may be challenged with demonstrating improved patient outcomes while driving operational cost efficiencies — including the cost of data. Organizations with fully integrated business systems and workflows benefit from leveraging enterprise-wide cost efficiencies, reducing operational expenses, enabling compliance and limiting overall risk.

The breadth and complexity of healthcare data sources require specific expertise to acquire, maintain, analyze and apply the information.

As we move beyond the days of data as a commodity and shift the focus to driving actionable insights from data, it is vital for healthcare stakeholders and their organizations to select a true data and analytics partner — not simply a vendor.

A successful match requires a shared business philosophy that embodies common values and a deep level of partnership across multiple areas.

The collaboration should be rooted in a mutual understanding of business vision and strategy, including system alignment and operational match. While time consuming, taking the right steps and approach when conducting due diligence to find a true collaborator sets the foundation for a successful and long-lasting working relationship.

1 Data quality, curation and compatibility

Every vendor may claim to have the most accurate data, but accuracy can be difficult to measure in this business. It is important for a vendor to maintain the scope, recency and precision of its data, then provide it in a manner that addresses your needs and those of your customers.

Let's take the example of shifting from low-definition to high-definition television. Perhaps the picture you currently have is missing pixels. While you do not need more pixels than you already have, as that will not enhance the picture, you need a data partner who can fill those missing pixels, so you can have full, high-definition picture of the problem you are trying to solve. A once fuzzy and imprecise picture becomes much clearer and sharper when the right mix of data is added to the equation. So how can a strategic data partner help you keep up? Here are some specific criteria to assess:

With **8.5 million health practitioners and 1 million health systems** in the U.S., this is just one illustration of how quickly provider data evolves. In one week, on average, the following changes occur nationwide television.[1]

33,000
provider addresses

3,300
names

1,750
phone numbers

1,500
fax numbers

100,000+
license status changes/expirations

☑ *The data must be carefully curated.*
Aggregating data is no simple business. Entrusting that this process is done properly improves quality standards, resolves missing information and minimizes the amount of unusable, "bad" data. You will want to understand what sources your data partner selected and why, what limitations there may be, as well as the potential for mixed data sets.

☑ *The data must be relevant and compatible.*
A vendor should clearly understand why your organization needs data and the nuances of the specific data attributes that matter most. As a customer, be sure to articulate your challenges and goals and where you think the vendor may be able to help. Set the stage and clearly communicate your unique needs to the vendor you are evaluating. But also give them the opportunity as the data experts to explain what the data can help you achieve.

☑ *The data must be comprehensive.*
Data is derived from numerous sources that are accessed concurrently so data can be confirmed, de-duplicated, corrected or augmented, as needed. A vendor should provide specifics regarding the breadth of data and validate them. It should also offer custom options to optimize the capability to make data both integrated and actionable.

☑ *The data must be recent.*
Data is always changing, so it must be regularly cleansed and maintained. It is important to understand and distinguish between the organization's proprietary data sources as well as its data aggregation capabilities. Most data should be refreshed daily, if not more frequently.

Provider data in action

A large multi-hospital health system based in Texas realized the need to improve its provider data. They knew that inaccuracies impacted many of its business functions. This included many areas of the business related to provider directories such as:

- Physician recruitment
- Claims processing
- Compliance
- Internal communications among providers in their hospitals
- Fraud detection
- Network management

A healthcare analytics organization needed to provide its clients with a physician search tool to find the identity of providers, their national provider identifier (NPI), address and locations where they see patients. The process was currently being addressed in house by manually cross-referencing Centers for Medicare and Medicaid (CMS) data and claims received. By implementing a provider look-up tool for end users, the organization reduced costs by outsourcing and increased data accuracy and completeness.

Some other common scenarios for utilizing provider data could be:

- Pharmacies for a compliance-driven prescriber verification
- Life sciences organizations to understand complex provider and facilities relationships to optimize outreach efforts
- Payers that need accurate provider data with provider directories to comply with the No Surprises Act

Making the most of data you do (and don't) have

Did you know that a single patient generates nearly 80 megabytes of structured and unstructured data annually and close to one-third of the world's data volume comes from the healthcare system?[2]

What technology do you have in place to help capture, resolve identities and link various disparate sources in a de-identified and secure manner? Regardless of the type of data, we all know that garbage in equals garbage out, which is never acceptable, especially not when it comes to healthcare. It is not just about the data a potential partner can provide, but it is also the technology they offer to help de-identify and link complex datasets to truly capture the power of real-world data (RWD).

? Questions to ask a potential data partner

How do you monitor and track changes in data?

What is the frequency of updates to your data sources and/or your data product?

How do you effectively integrate multiple data sources that may contain redundant or conflicting information?

What percentage of the market does your data represent?

How do you measure or account for bias in underlying datasets?

What does a continuous data monitoring program look like?

Is it possible to share some sample data counts based on our area of interest?

What types of data are you able to provide?

Do the results of the data aggregation process emphasize recency and frequency equally? Or is more weight placed on one vs. the other?

Going beyond data with next-generation tokenization

Data and technology capabilities can often go hand-in-hand. But not all data companies have next-gen technology in place and not all technology vendors have their own data.

As every research population is made up of individual people and their unique circumstances, the more clearly you can understand each person, the better-equipped you can be to improve outcomes. This understanding requires data — but in healthcare, the data you need is too often scattered in different systems or silos, locked away due to privacy laws, or may not be accurately linked to patients.

To conduct the most impactful research and generate real-world evidence of improved outcomes, today's healthcare professionals need real-world data (RWD) that delivers a complete picture of each patient's clinical and non-clinical records.

Perhaps you are using first-generation tokenization methods and notice a lack in precision. And precision is critical to healthcare organizations to achieve better patient outcomes.

Let us take tokenization and apply it to a real-life scenario. A life sciences organization needs to recruit a diverse group of trial participants for a potential new treatment for depression. David Sr., the father and David Jr., the son, get matched together into a single token. David Sr. takes medication for a heart condition, while David Jr. struggles with depression. When a clinical trial for a novel antidepressant becomes available, David Jr. misses the opportunity to participate because of false-positive data connecting him with his father's heart condition, which excludes him from the study. This is an example of where legacy tokenization can fall short.

Some other common uses for healthcare tokenization could be:

• Better plan clinical trial protocol design, resources and support

• Observe real-world outcomes beyond trials

• Increase diverse representation of eligible trial participants

• Match records across datasets with precision

• Combine your data with other relevant datasets to enable new use cases

The linguistic definition of the word tokenize is to separate (text) into discreet words, sequences, symbols, or other linguistic units. The most basic form of tokenization has existed for centuries — think about subway and casino tokens — they serve as a substitute for actual money. When you take this definition and examples and apply it to healthcare, tokenization is the process of de-identifying information that could identify a patient (e.g., name, address, zip, email, medical claims, etc.) and turning that information into a string of letters, numbers and symbols that are passed along via a token that is encrypted.

2 Market expertise

Deriving value-add insights from data requires not only continuous diligence, but also, an in-depth understanding of healthcare-specific data sources and practices.

Strategic partners should offer deep expertise in the nuances of healthcare data and demonstrate a record of accomplishment of performance in healthcare and other highly regulated industries.

It's not just the expertise of the people and company, but you should also evaluate and understand the expertise that is built into the products and algorithms.

For example:

Let's think about the need for consistently updated provider data in the payer space. A persistent problem for payers is an inaccurate provider directory which impacts member experience and in turn impacts quality scores. Each provider has many data elements that must be up to date: numerous locations where he or she practices, phone numbers, fax numbers, DEA numbers and state license statuses, all of which change. With constant change, a vendor must be able to provide quality data to effectively enrich payer provider data. Understanding the problems inherent to the payer perspective on provider data and attestation process is required to achieve a high attestation success rate and ultimately achieve a more accurate provider directory.

Let us look at another example, relating to de-identified medical claims intelligence. Consider the intricacies and complexities of ICD-10 codes and the challenge of gaining actionable data insights without relevant competence in this area. If a life sciences company is interested in marketing a medication to physicians to treat breast cancer, its data partner would need to understand the specific procedures and corresponding codes applicable to the client's particular treatment for this diagnosis.

Failing to include codes for less-common procedures may leave a significant physician population out thus creating an incomplete and inaccurate market assessment.
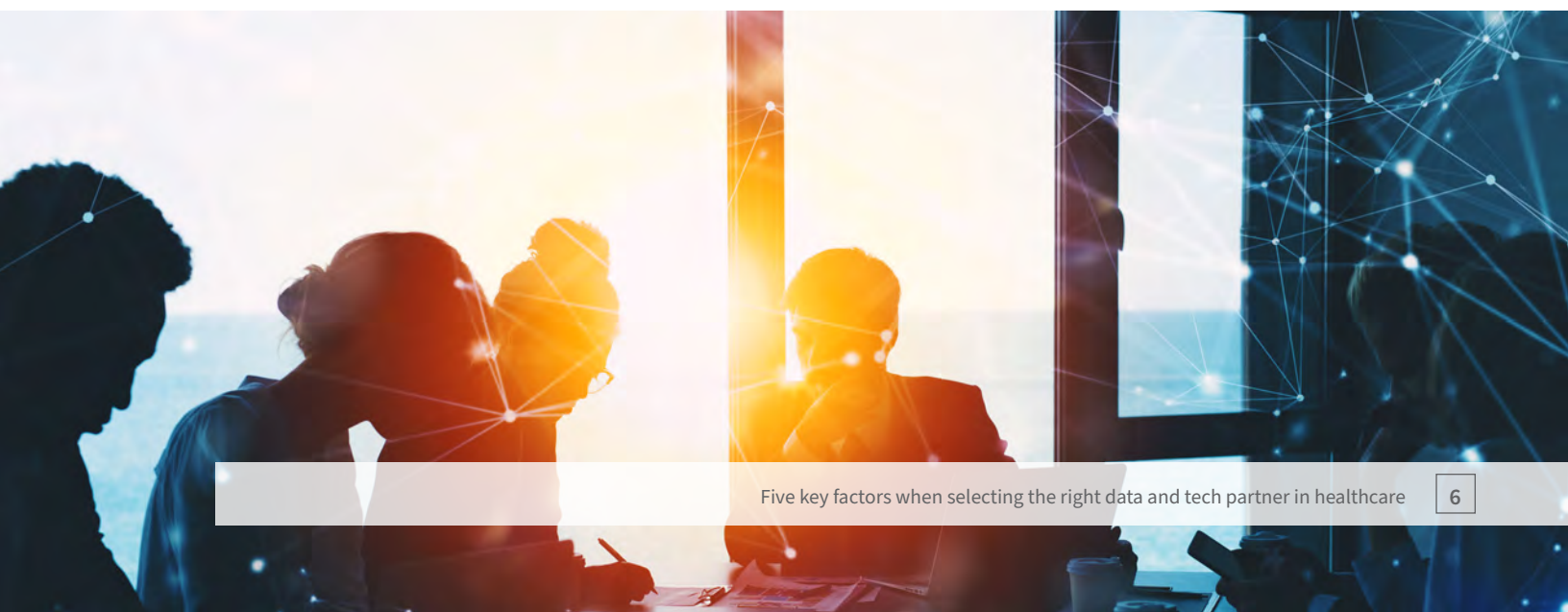
Let's talk about social determinants of health (SDoH)

A level of expertise proves particularly important when it comes to more novel and evolving applications, such as the use of social determinants of health data attributes to improve patient outcomes. Access to quality data is just the beginning — knowing how to use it properly for your business is where the consulting component plays a strong role.

SDoH data in action

Say for instance a data exchange platform for medication and benefits data needed SDoH to improve medication adherence and patient care management. By leveraging patient specific SDoH data attributes and risk scores, they can now identify the top three contributors to a patient's level of adherence or non-adherence to medication and implement innovative programs, such as prescription delivery, to improve access to medication for improved care and outcomes. A vendor that can contribute both clinically validated data along alongside proven expertise and consulting, adds tremendous value to your business.

SDoH can be grouped into five domains which are: economic stability, education access and quality, healthcare access and quality, neighborhood and build environment, and social and community context.[3]

Social determinants of health (SDoH) are the conditions in the environments where people are born, live, learn, work, play and age that affect a wide range of health, functioning and quality-of-life outcomes and risks data.[3]

? Questions to ask a potential data partner

Can you share some examples of organizations such as ours you have worked with and speak to their use cases?

How have you helped address some of the challenges that we are looking to solve with other clients?

Are there any current customer references I can speak with?

How do you determine if your data will meet the specific needs of your customers?

3 Implementation success and beyond

Identifying the right fit for your data provider and/or a data analytics partner necessitates an evaluation of implementation and continued optimization programs. To operationalize data insights to meet business objectives, the information should be easily integrated into the organization's workflow and align to your specific business objectives and goals.

The two critical evaluation points are implementation program and multi-channel delivery options.

We define implementation victory as the seamless execution that drives your organization's stated measures of success. An ideal implementation and delivery team should take a consultative approach and have a detailed timeline with action items and responsibilities. This part of the process should be clear, transparent, consistent and smooth. An actionable plan should be presented and serve as the guide.

Ask questions to discover what project management methodology or standards the organization follows. Identify the key resources on the implementation team.

It's important to recognize that each product or combination of products you decide to purchase and move forward with will influence the project and engagement plan. However, during the sales process, ask to see a typical project plan, the expected duration and identified resources required from your organization for success. Having this information will demonstrate the potential data partner's maturity in implementation management as well as set expectations for your organization and technical resources required. A clearly articulated plan for implementation support, project timeline as well as training and engagement model is critical.

Finally, as initially stated objectives might shift over time an effective organization will be able to articulate their post implementation support model as well as continue optimization of an implemented solution.

Questions to ask a potential data partner

How does integration occur for each of the solutions we are interested in?

What can I expect during the onboarding process?

What type of training is offered?

Are advisory services available for additional support?

What are the channels available when support is needed?

How are version changes and enhancements deployed/managed post implementation?

Multi-channel delivery options

Most organizations have a diverse technology stack or workflow engine, making it critical to identify partners that offer multichannel delivery mechanisms to ensure there are options to meet your organization's unique requirements. Having data insights delivered via multiple deployment options such as file-based deliverables, Application Programming Interface (API) or web-based Graphical User Interface (GUI) applications ensures the partner can accommodate both your organization's current and future state needs.

Additionally, a partner should be able to advise as to which delivery mechanisms will work best to deliver value based upon your organization's goals, workflow and data integration needs.

A consultative implementation team will determine if an API is the best fit to update your internal data warehouses because of the real-time update required and easy data ingestion — or due to volume and processing ingestion needs, would file-based data loads make more operational sense?

For example, if a care coordinator at a hospital has access to receive a single patient's SDoH data just before release, the coordinator now has the most-up-to-date insight available in real-time to develop the patient's post-release program. Conversely, to create a holistic diabetes outreach program for organizations to target a population of patients, a file-based deliverable with stratification of the entire population is required to design and execute this program.

In short, the design discussion should center around the current state and ability to support your organization in the future as needs evolve.

Questions to ask a potential data partner

How is the data delivered? What are the options (e.g., file-based, APIs, etc.)?

What are the standard file transfer options available?

What is the average API response times (e.g., transactions per second)?

Is the solution consistent regardless of the delivery channel?

What are the technical resources required associated to each delivery channel option?

Are there standard software development kits (SDKs) available?

Are there standard data schemas available with a data dictionary?

4 Data privacy and security

A true data partner should always be available to support and, if necessary, troubleshoot issues as well as reconfigure the solution as the customer's needs evolve in the dynamic market.

Additionally, a partner must demonstrate a high level of commitment to data security. Healthcare is a highly regulated industry in which compliance is critical to success, covering an array of rules, regulations and processes, particularly as they relate to protected health information. In recent years and amid cybersecurity breaches, healthcare organizations are under increasing pressure to protect their data, secure access, guard against threats and mitigate risks under specific requirements and industry standards. At the same time, organizations need to adhere to strict requirements regarding appropriate use of healthcare data.

The ability to handle substantial amounts of data while ensuring continuous compliance is an imperative for both healthcare organizations and their data partners.

❓ Questions to ask a potential data partner

Is the architecture reconfigurable to accommodate future changes?

Can you explain your strategies for protecting data and how it supports us meeting strict compliance demands?

Can you share what sort of industry certifications you have in place?

How do you adhere to guidelines and requirements regarding the appropriate and ethical use of data?

Can you share more about your credentialing process?

5 A culture of innovation

In today's world largely shaped by technological innovation, it's vital that a data partner is future-focused, innovation-driven and continuously pursuing product or service improvement.

There is no "one size fits all" solution for any organization dedicated to understanding the nuances of its clients' business operations.

This innovative mindset underscores all the criteria of this Buyers' Guide: *from data accuracy to reconfigurable architecture to flexible implementation.*

When evaluating data, it is important to ask and understand how the volume of data sets/sources has grown and expanded over time and the technology that plays a role in minimizing duplications — year over year these areas should grow and improve.

Do not just rely on the information you collect from a vendor directly. Do some additional digging to see what type of industry recognition they may have received, both for their people and their solutions and technology. Look for news articles, press releases and more from trusted third-party organizations. Industry recognition can tell you a lot about where a company is coming from — and where it is going.

? Questions to ask a potential data partner

How do you prioritize innovation in both design and delivery of your data and analytics products?

Can you share some near-term roadmap items?

How does input from customers affect future product changes? Do your customers have an impact on the road map?

Over the past year, what significant product enhancements have been made or innovative solutions launched?

So, what's next?

The selection of a data vendor is less about the delivery of information at a point in time and more about establishing a partnership that enables a healthcare organization to better understand patients, providers and customers across its departmental operations.

Look for a partner who is constantly pushing the boundaries of data analytics while also staying familiar with compliance regulations. Find an organization that focuses its innovation efforts on the success of its customers. You want to find the company who is innovating to help solve your needs as the buyer.

Select a partner that functions as an extension of your organization and aligns with your goals for meeting the strategic objectives of your business now and into the future.

To learn more how the Health Care business of LexisNexis® Risk Solutions can help your organization, __get in touch today.__

Sources

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